### **Abstracts**

These selected abstracts and titles from the world literature are arranged in the following sections:

Syphilis and Other Treponematoses
(Clinical and Therapy; Serology and Biological False
Positive Phenomenon; Pathology and Experimental)
Gonorrhoea
(Clinical; Microbiology; Therapy)
Non-Specific Genital Infection

Candidosis
Genital Herpes
Other SexuallyTransmitted Diseases
Public Health and Social Aspects
Miscellaneous

Trichomoniasis

# Syphilis and other treponematoses (Clinical and therapy)

## Secondary Syphilis and Sarcoidosis

LAUGIER, P. (1976) Arch. Derm., 112, 261

Reiter's Disease

A patient aged 40 years developed a preputial sore and urethritis, and had received treatment which he was unable to specify; 6 months later spreading erythematous lesions occurred on the trunk. A year later he was seen for uveitis and within the next few months epitrochlear nodes developed and grouped acuminate, papular lesions resembling follicular syphilides appeared on the trunk. The reagin and treponemal antibody tests were strongly positive with rising titre of VDRL.

Skin biopsy showed a perifollicular infiltrate composed of histiocytes and lymphocytes with some epithelioid and giant cells but no plasma cells. The skin lesions with uveitis suggested a diagnosis of Boeck's sarcoidosis.

Antisyphilitic therapy with injections of bismuth, injections of mercuric oxycyanide, oral spiramycin, and then penicillin aluminium monostearate had no effect on the skin or ocular lesions but therapy with 30 mg. prednisone daily effected a complete disappearance of lesions after 2 weeks.

N. A. Durham

#### Statistical Study of the Results of Treatment of Two Groups of Patients with Primary and Secondary Syphilis treated identically at an Interval of 11 Years

(Étude statistique des résultats thérapeutiques concernant deux groupes de syphilitiques primaires et secondaires traités indentiquement à onze ans d'intervalle) BOLGERT, M., LESOURD, M., and SALMON, D. (1975)
Bull. Acad. nat. Méd., 159, 589

This paper compares the serological response of patients with early syphilis treated during 2 periods separated by an interval of 11 years, first with a mercury preparation given intravenously for 3 days, and later with 15 m.u. penicillin spread over 17 days.

Primary In Period 1 (1947-50), two of 35 patients with seropositive primary syphilis remained seropositive 6 and 15 months after treatment. In Period 2 (1961-7), ten of 44 similar patients still had positive tests 6 months after treatment and 2 after 15 months. The median times for seroreversal were 1 month in Period 1 and 4 months in Period 2.

Secondary Only three of 65 patients treated for secondary syphilis during Period 1 were still seropositive after 6 months and none after 2 years; the median time for seroreversal was 2 months. In Period 2, however, 41 of 56 patients treated for secondary infections still had positive serum tests after 6 months and seventeen of fifty after 2 years; the median time for seroreversal was 8 months.

The authors suggest that this change is explicable by a decrease in the activity of penicillin against Treponema pallidum. They discount the effect of a possible increase in the sensitivity of the tests used to assess response. These are not named but comprised a battery of complement-fixation and flocculation tests, presumably for reagin antibody. [Unless the same tests were used in both periods, the significance of the apparent diminution in response cannot be assessed.]

A. E. Wilkinson

[Reprinted from Abstracts on Hygiene, by permission of the Editor]

Clinical Aspects of Syphilis in Guyana PRADINAUD, M. P. (1975) Bull. Soc. franç. Derm. Syph., 82, 359

Nephrotic Syndrome and Hepatitis in Secondary Syphilis LEBON, P., BEAUFILS, H., NOBLE, J. P., CHOMETTE, G., and AURIOL, M. Bull. Soc. franç. Derm. Syph., 82, 354

Endemic Syphilis in the Karoo DU TOIT, J. A. (1976) S. Afr. med. J., 50, 395 (reprinted from same journal of March 29, 1970)

**Syphilis** (Serology and biological false positive phenomenon)

#### Seroreactivity to Syphilis in Malaysian Blood Donors and Expectant Mothers

JEGATHESAN, M., FAN, Y. H., and ONG, K. J. (1975) S.E. Asian J. trop. Med. publ. Hlth, 6, 413 VDRL tests were carried out on sera from 8,574 blood donors and 10,096 antenatal patients at the Institute for Medical Research, Kuala Lumpur, between October, 1973, and July, 1975. Reactive results were confirmed by FTA-ABS tests. 493 of the sera from donors (about 20 per cent. of whom were servicemen) gave reactive VDRL tests (5.8 per cent.); FTA-ABS tests were reactive on 403 of these. The screening test was reactive on 328 of the sera from pregnant women (3.3 per cent.); 200 of these had reactive FTA-ABS tests.

These results suggest a fairly high level of treponemal infection in Malaysia. Anti-yaws campaigns have been carried out in this area in the past, and a proportion of the seroreactivity found may well be due to old yaws rather than to active syphilis. A. E. Wilkinson

[Reprinted from Abstracts on Hygiene, by permission of the Editor]

#### Immunizations and False Positive VDRL Tests in Recruits

SCHUELLER, W. A., and IZUNO, G. T. (1976) Milit. Med., 141, 93 263 Marine Corps recruits were immunized against influenza, poliomyelitis, meningococcal meningitis, adenovirus, smallpox, and tetanus during the first 8 to 10 days of their service. VDRL tests were negative on all of these men before the immunizing injections were given. The tests were repeated about 1 and 9 weeks later; only one false positive VDRL result was found (0.38 per cent.). It is concluded that multiple immunization is not commonly associated with false positive VDRL

[Such false positive reactions are often only transient and might have been missed by the rather wide spacing of the follow up VDRL tests.]

A. E. Wilkinson

[Reprinted from Abstracts on Hygiene by permission of the Editor]

#### Studies on the Treponema pallidum Immobilizing Activity in Normal Human Serum

- Serum Factors participating in the Normal Serum **Immobilization Reaction HEDERSTEDT**, B. (1976) Acta path. microbiol. scand., 84, 135
- 3 The Kinetics of the Immobilization Reaction of Normal and Immune Sera **HEDERSTEDT**, B. (1976) Acta path. microbiol. scand., 84, 142
- 4 The Importance for the Outcome of the Conventional **TPI-test** HEDERSTEDT, B. (1976) Acta path. microbiol. scand., 84, 148

#### Syphilis (Pathology and experimental)

#### Treponeme Outer Envelope: **Chemical Analysis**

WACHTER, M. S., and JOHNSON, R. C. (1976) Exp. Biol. Med., 151, 97

Retention of Motility of Treponema pallidum (Nichols Virulent Strain) in an Anaerobic Cell Culture System and in a Cell-Free System

SANDOK, P. L., JENKIN, H. M., GRAVES, S. R., and KNIGHT, S. T. J. clin. Microbiol., 3, 72

#### Gonorrhoea (Clinical)

Relation of Infection with Neisseria gonorrhoeae to ABO Blood Groups FOSTER, M. T., and LABRUM, A. H. (1976)

J. infect. Dis., 133, 329 This study on 584 pregnant black women in St. Louis, Missouri, found that the incidence of gonorrhoea in those with blood group B was 25.6 per cent., compared with an overall incidence of this blood group of 16.8 per cent. in this population. Conversely, blood group A occurred in 20.6 per cent. of patients, as against 31.2 per cent. in the population. Both these findings were statistically significant (P < 0.01). The authors express interest in the susceptible group and postulate that they may possess an opsonizing anti-B isoagglutinin capable of cross-reacting with B-like antigens reported in some Gramnegative organisms. Brian Evans

Gonococcal Arthritis in Pregnancy: A Ten-Year Review CHAPMAN, D. R., and FERNANDEZ-ROCHE, L. (1975) Sth. med. J., **68,** 1333

#### Disseminated Gonococcal Infection and Tenosynovitis from an Intrauterine Device

COLIN, M. J., and WEISSMANN, G. (1976) New Engl. J. Med., 294, 598

Use of Tampons for Identifying Asymptomatic N. gonorrhoeae Infections HAUGHIE, G. E., AMES, W. R., and MADSEN, E. F. (1975) J. Amer. vener. Dis. Ass., 2, 26

#### **Gonorrhoea** (Microbiology)

Simple Disk-Plate Method for the Biochemical Confirmation of Pathogenic Neisseria VALU, J. A. (1976) J. clin. Microbiol., 3, 172

Effect of Types of Media on the Production of Acid from Glucose by So-Called Glucose-Negative Strains of Neisseria gonorrhoeae BARON, E. S., and SAZ, A. K. (1976) 7. clin. Microbiol., 3, 330

Adaptation of the Minitek System for the Rapid Identification of Neisseria gonorrhoeae MORSE, S. A., and BARTENSTEIN, L. (1976) J. clin. Microbiol., 3, 8

Electron Capture Gas Chromatographic Detection of Acetylmethylcarbinol produced by Neisseria gonorrhoeae MORSE, C. D., BROOKS, J. B., and KELLOGG, D. S., Jr. (1976) J. clin. Microbiol., 3, 34

Alteration of Growth, Infectivity, and Viability of Neisseria gonorrhoeae by Gonadal Steroids

FITZGERALD, T. J., and MORSE, S. A. (1976) Canad. J. Microbiol., 22, 286

Pathological Features of **Experimental Gonococcal** Infection in Mice and Guineapigs CHANDLER, F. W., KRAUS, S. J., and WATTS, J. C. (1976) Infect. and Immun., 13, 909

Chromosomal Location of Antibiotic Resistance Genes in Neisseria gonorrhoeae BISWAS, G., COMER, S., and SPARLING, P. F. (1976) 7. Bact., **125,** 1207

Penicillin Tolerance in Neisseria gonorrhoeae. Evidence disallowing a Penicillinasemediated Mechanism from a Refined Microbiological Assay Method SCUDAMORE, R. A., and GOLDNER, M. (1976) Canad., 7. Microbiol., 22, 76

#### Non-specific genital infection

Acute Epididymitis attributable to Chlamydia Infection. Preliminary Report HEAP, G. (1975) Med. J. Aust., 1, 718 Two cases of acute epididymitis are described. Neither had urinary symptoms or microscopic evidence of pyuria. In the first patient, a group

reactive complement-fixation test for Chlamydia showed a rise in titre from 1:4 one week after the onset to 1:64 two weeks later, the titre falling subsequently. In the second patient a titre of 1:2048 was reported 5 weeks from the onset, with a subsequent fall. Both patients recovered with expectant treatment.

The author suggests that these results indicate that chlamydial infection may be a cause of acute epididymitis. It is a pity that cell culture for C. trachomatis was not performed, particularly since the scrotal contents were explored in the first patient. 7. D. Oriel

Comparison of Chlamydia Subgroup A Detection from Clinical Specimens after 40 and 64 Hours of Incubation in 5-Iodo-2-Deoxyuridine-Treated McCoy's Cells JOHNSON, J. E., and SMITH, T. F. (1976) 7. clin.

Microbiol., 3, 334 The time course of formation of inclusion bodies produced by Chlamydia in 5-iodo-2-deoxyuridine (IUDR)treated McCov cells was studied with the use of a known isolate of Chlamydia trachomatis D/UW-184/Ur and 47 frozen clinical urethral specimens previously shown to be either positive or negative for chlamydial inclusions after 3 days of incubation. Of these 47 specimens, 42 gave similar results after 2 and 3 days of incubation. Subsequent examination of 369 clinical specimens from the genito-urinary tract over a 6-month period revealed 47 (13 per cent.) Chlamydia-positive cultures, all of which demonstrated inclusion bodies by iodine staining at 40 and 64 hrs postinoculation. Another 146 similar clinical specimens were incubated for 64 and 88 hrs. Inclusions were detected by iodine staining from 22 (15 per cent.).

This study indicates that, although Chlamydia subgroup A inclusions are larger at 64 hrs, they can be readily detected from clinical specimens in IUDR-treated McCoy cells 40 hrs after infection. Authors' summary

Competition between Chlamydia psittaci and L Cells for Host Isoleucine Pools: a Limiting Factor in Chlamydial Multiplication HATCH, T. P. (1975) Infect. and Immun., 12, 211 Growth of Chlamvdia psittaci (strain 6BC) in L cells was dependent on the concentration of isoleucine in the growth medium. Latent infection of C. psittaci in L cells was established when the cells were grown in depleted medium, and this latent infection was reactivated by adding isoleucine to the medium. When cell cultures were grown in medium of a given isoleucine concentration, increasing the cell concentration decreased growth of the parasite. Conversely, increasing the isoleucine concentration in cultures of a given cell density enhanced parasite growth.

The author postulates that host cell and parasite compete for isoleucine, and that normally the cells obtain isoleucine preferentially, so that chlamydiae only grow well in conditions of isoleucine excess. Evidence in favour of this theory was produced by treating cells with cycloheximide. Cycloheximide inhibited L cell protein synthesis, and therefore reduced cellular requirements for protein precursors, but did not interfere with protein synthesis in the parasite. Under these conditions, chlamydial growth was enhanced.

This work provides a model cell culture system for studying latent chlamydial infections at a biochemical level, which may have relevance to how latent chlamydial infections are maintained and reactivated in vivo.

Shirley J. Richmond

Interaction of Chlamydia trachomatis organisms and HeLa 229 Cells KUO, C.-C., and GRAYSTON, J. T. (1976) Infect. and Immun., 13, 1103

The infection of HeLa 229 cells in monolayer culture with trachoma (B/TW-5/OT) and lymphogranuloma venereum (LGV) (L<sub>2</sub>/434/Bu) organisms was studied in terms of two parameters: radioactivity counts of cell-associated tritium labelled organisms at the initial stage of inoculation for measurement of attachment, and inclusion counts of infected cells after incubation for measurement of growth. Factors affecting attachment and inclusion formation and correlation of the two are presented. It was shown that attachment is an important initial step in infection by Chlamydia trachomatis. The rate of attachment was temperature dependent. The attachment of LGV organisms was affected more profoundly by temperature than was that of trachoma organisms. Attachment and inclusion

formation of trachoma and LGV organisms were inhibited by heparin. Diethyl-aminoethyl-dextran was again shown to enhance attachment and inclusion formation of trachoma but not LGV organisms. NaF had no effect on attachment, but inhibited inclusion formation of both trachoma and LGV organisms. Both attachment and inclusion formation of trachoma organisms were strongly enhanced by centrifugation of the inoculum on to the cell monolayer. Although inclusion formation of trachoma organisms was much greater in susceptible cells (HeLa 229) than relatively insusceptible cells (foetal tonsil), attachment was only slightly greater. The results based on the test of two cell lines suggested that attachment probably is not a critical factor in determining a cell line's susceptibility to infection with trachoma organisms.

Authors' summary

Differences in the Therapeutic Response of Chlamydia-Positive and Chlamydia-Negative Forms of Nongonococcal Urethritis

HANDSFIELD, H. H., ALEXANDER, E. R., WANG, S. P., PEDERSEN, A.H.B., and HOLMES, K. K. (1976) J. Amer. vener. Dis. Ass., 2, 5

Patients with nongonococcal urethritis (NGU) were randomly assigned on a double-blind basis to treatment for 7 days with tetracycline hydrochloride, 500 mg four times daily, or placebo. Chlamydia-positive NGU and Chlamydia-negative NGU both responded significantly better to tetracycline than to placebo. Persistence or recurrence of NGU from 1 to 6 weeks after completion of initial tetracycline therapy occurred in six (17 per cent.) of 35 Chlamydiapositive cases and fourteen (47 per cent.) of thirty Chlamydia-negative cases (P = 0.01). Four patients with Chlamvdia-positive NGU and two with Chlamvdia-negative NGU had recurrences later than 6 weeks after therapy. Chlamydia trachomatis was isolated from none of twenty patients at the time of persistence or recurrence of NGU from 1 to 6 weeks after therapy, and from four of six patients who recurred later than 6 weeks after therapy, including three of the four who initially had Chlamydia-positive NGU. The post-treatment isolate was the same immunotype as the pretreatment isolate in each of the latter three cases. C. trachomatis was recovered

from the female sex partner(s) of fifteen of 24 men with Chlamydiapositive NGU and one of 21 men with Chlamydia-negative NGU (P < 0.002). Controlled trials are required to confirm the need for treatment of female sex partners to prevent recurrence of both types of NGU, and to determine the optimal type, dose, and duration of therapy for these diseases.

Authors' summary

#### T-Mycoplasmas: Growth Patterns and Physical Characteristics of Some Human Strains FURNESS, G. (1975)

J. infect. Dis., 132, 592 Laboratory strains and fresh human isolates from patients with nonspecific urethritis were studied. The effect of shaking, sonication, filtration, susceptibility to ultraviolet irradiation, storage at 2-4°C, and the effect of varying the temperature during incubation are reported. These T-mycoplasmas were not homogeneous, with growth curves different from those of classical human mycoplasmas. Most had no lag at 37°C, and the cfu consisted of single organisms, but some had a lag and multicellular cfu and others again had no lag at 37°C but had one at 40°C. Thus these mycoplasmas were sensitive to a rise of only 3°C. Every strain died within 2.5 min at 56°C. This information is useful when it is necessary to eliminate mycoplasmas from sera and other heat-labile substances.

G. W. Csonka

#### Comparison of Methods for the Isolation of Genital Mycoplasmas from Men TARR, P. I., LEE, Y. H., ALPERT, S., SCHUMACHER, J. R.,

ZINNER, S. H., and McCORMACK, w. m. (1976)

7. infect. Dis., 133, 419 209 men were studied to determine the optimal method of obtaining cultures for genital mycoplasmas. Ureaplasma urealyticum (T. mycoplasmas) was isolated from 95 (45.5 per cent.) of the participants. Urethral cultures obtained by means of urethrogenital calcium alginate swabs identified 82 (86 per cent.) of the 95 colonized men. Urethral cultures taken with cotton-tipped applicators (76 per cent.), urine cultures (27 per cent.), and cultures of the coronal sulcus (24 per cent.) detected fewer colonized men. All men who were colonized with *U. urealyticum* were identified by one of the two urethral cultures. Mycoplasma hominis was recovered from 73 (34.9 per cent.) of the 209 men. Urethral cultures identified most of the circumcised men who were colonized with M. hominis (11 of 14: 79 per cent.). In contrast, cultures from the coronal sulcus detected most of the colonized uncircumcised men (49 of 59: 83 per cent.). More than 90 per cent.) of the men who were colonized with M. hominis were identified by either urethral culture or culture of the coronal sulcus. A similar study conducted among 143 normal college students yielded comparable results. Authors' summary

Treatment of Non-Specific Urethritis HEAP, G. (1975) Med. J. Aust., 2, 831

Role of Mycoplasma in Human Infertility SCHOUB, B. D., JACOBS, Y. R., HYLEN, E., and FREEDMAN, R. Sth Afr. med. J., **50, 44**5

Prolonged Survival of Ureablasma urealyticum in Liquid Culture WINDSOR, G. D., and TRIGWELL, J. A. (1976) J. med. Microbiol., 9, 101

Urea-Hydrolysing Activity of a T-Strain Mycoplasma: Ureaplasma urealyticum MASOVER, G. K., SAWYER, J. E., and HAYFLICK, L. (1976) 7. Bact., 125,

Study of the Amino Acids and **Proteins of Some Human** T-Mycoplasma Membranes WHITESCARVER, J., TROCOLA, M., CAMPANA, T., MARKS, R., and FURNESS, G. (1976) Exp. Biol. Med., **151,** 68

#### Reiter's disease

Familial Reactive Arthritis of Reiter's and Ankylosing Spondylitis Types in the HLA-27 **Genotype** ROSE, B. s. (1976) N. Z. med. J., 83, 107

Reiter's Disease and TRIC Agents SIBOULET, A., CATALAN, F., and DEUBEL, M. (1976) Bull. Soc. franç. Derm. Syph., 82, 416

#### **Trichomoniasis**

In vitro Effect of Metronidazole on the Ultrastructure of Trichomonas vaginalis Donné NIELSEN, M. H. (1976) Acta path. microbiol. scand., 84, 93

Metronidazole Bioassay SPECK, W. T., STAIN, A. F., and RESENKRANZ, H. S. (1976) Antimicrob. Agents Chemother., 9, 260

#### Candidosis

Synergistic Action of Amphotericin B and Rifampin against Candida Species BEGGS, W. H., SAROSI, G. A., and WALKER, M. I. (1976) J. infect. Dis., 133, 206

#### Vaginal Candidosis

MASTERSON, G., HENDERSON, J. N., NAPIER, I., and MOFFOTT, M. (1976) Brit. med. 7., 1, 712 (letter)

#### Genital herpes

Genital Herpes Simplex Virus Type 1 Infection. Variability in Modes of Spread DOLIN, R., GILL, F. A., and NAHMIAS, A. J. (1975) J. Amer. vener. Dis. Ass., 2, 13 A young woman developed acute genital ulceration 5 days after extramarital coitus with a man with penile 'blisters'. She became febrile and complained of headache and abdominal pain. Herpes simplex virus Type 1 (HSV1) was recovered from the genital lesions, but not from the pharynx, and the titre of neutralizing antibodies against HSV1 rose from 1:8 to 1:128 over a 3-week period. Liver function tests (LFTs) were abnormal: SGOT 177 mU/ml. (normal 7.5-40), SGPT 197 mU/ml. (normal 5-35), alkaline phosphatase 46IU/ml. (normal 9.35 IU), and total bilirubin 1.0 mg/100 ml. The cerebrospinal fluid was normal. She recovered in 2 weeks with expectant treatment, the LFTs reverting to normal.

The woman's husband attended hospital 5 days after she had developed symptoms; he was complaining of sore throat. He had had sexual contact, restricted to cunnilingus, with her a few days previously. On examination, he was febrile and had an acute pharyngitis with a thick exudate over the fauces. HSV1 was recovered from the pharynx and he too exhibited seroconversion against HSV1. Apart from the development of a mild otitis media which responded to oral phenoxymethyl penicillin, his subsequent progress was satisfactory and he recovered completely after 2 weeks.

The authors' results of the typing of HSV isolates from 527 individuals with urogenital infections show that 10.9 per cent. of such infections in women and 3.4 per cent. in men are caused by HSV1. The epidemiology of genital HSV1 infections is reviewed, and it is noted that there are no apparent differences in the clinical and cytopathological features of genital HSVI and HSV2 infections in humans, although the two virus types exhibit many biochemical and biological differences. It is suggested that there must be a survival advantage for HSV2 in the genital tract.

J. D. Oriel

#### Prospective Double-Blind Evaluation of Topical Adenine Arabinoside in Male Herpes Progenitalis

GOODMAN, E. L., LUBY, J. P., and JOHNSON, M. T. (1975) Antimicrob. Agents Chemother., 8, 693

This paper reports a randomized double-blind trial of the treatment of genital herpes in men by either 3 per cent. adenine arabinoside (Ara-A) in petrolatum cream or a placebo of identical appearance. The cream was applied four times daily for 7 days. Viral cultures were taken before treatment and on the third and eighth day of therapy. Blood was taken before treatment for the determination of herpes simplex virus (HSV) antibody titres.

34 isolation-confirmed episodes in 32 men were studied, of which 29 typed as HSV2. Seven episodes were regarded as primary and 27 as recurrences. Whilst a significant relationship between clinical response and change in virus titre between day 1 and day 3 was demonstrable, no relationship between fall in titre and the use of drug or placebo could be shown. Virus titre between days 1 and 3 fell significantly more in the 'recurrent' group than in the 'primary' group, but again no correlation was found with therapy. Where complement-fixing (CF) antibody was measured, there was no significant difference in viral excretion according to CF titre. Thus topical Ara-A did not modify the course of genital herpes in these men.

The authors suggest two possible reasons for these results:

(1) The insolubility of Ara-A may prevent diffusion into the lesions;

(2) The continuous migration of viral particles from the sacral ganglia may prevent effective elimination of the virus.

The results show that, while the level of CF antibody was not correlated with quantitative virus excretion, the striking difference in viral excretion between days 1 and 3 in the 'recurrent' group suggests that previous experience of the virus may modify the subsequent course of attacks, possibly through a manifestation of cell-mediated immunity.

[This was a thorough study, which poses a number of interesting questions on the pathogenesis of herpes genitalis infection.]

G. L. Ridgway

Herpesvirus and Cancer of the Uterine Cervix Brit. med. J., 1, 671 (leader)

## Genital Herpes Simplex in the Female, 1968 to 1973

MACDOUGALL, M. L., and McINDOE, W. A. (1975) N.Z. med. J., 82, 333

An Alternative Theory of Herpes Simplex Recurrence and a Possible Role for Prostaglandins HILL, T. J., and BLYTH, W. A. (1976) Lancet. 1, 397

Electron Microscope Observations on Tubular Structures in Cells infected with Herpes Simplex Virus Type 2 ODA, H., and MORI, R. (1976) Arch. Virol., 50, 159

Transformation of Human Embryonic Fibroblasts by photodynamically Inactivated Herpes Simplex Virus, Type 2 at Supra-optimal Temperature KUCERA, L. S., and GUSDON, J. P. (1976) J. gen. Virol., 30, 257

Temperature-Sensitive Mutants of Herpes Simplex Virus Type 2: A Provisional Linkage Map based on Recombination Analysis TIMBURY, M. C., and CALDER, L. (1976) J. gen. Virol., 30, 179

Temperature-Sensitive Mutants of Herpes Simplex Virus Type 2: Description of Three New Complementation Groups and Studies on the Inhibition of Host Cell DNA Synthesis HALLIBURTON, I. W., and TIMBURY, M. C. (1976) J. gen. Virol., 30, 207

Proteins of Herpesvirus Type 2: Virion, Nonvirion, and Antigenic Polypeptides in Infected Cells STRNAD, B. C., and AURELIAN, L. (1976) Virology, 69, 438

IgM Antibody to a Tumor-Associated Antigen (AG-4) induced by Herpes Simplex Virus Type 2: Its Use in Location of the Antigen in Infected Cells AURELIAN, L., SMITH, M. F., and CORNISH, D. J. J. nat. Cancer Inst., 56, 471

# Public health and social aspects

Evaluation of Gonorrhea Control Efforts HINMAN, A. R. (1975) J. Amer. vener. Dis. Ass., 2, 9

Venereal Disease Prevention and a Selected Group of College Students YARBER, W. L., and WILLIAMS, C. E. (1975) J. Amer. vener. Dis. Ass., 2, 17

Venereal Disease Knowledge Evaluation Instrument SCHMIDT, N. G., LANDISS, C. W., and PONDER, L. D. (1975) J. Amer. vener. Dis. Ass., 2, 29

#### Miscellaneous

### Group B Streptococci in the Female Genital Tract

FINCH, R. G., FRENCH, G. L., and PHILLIPS, I. (1976) *Brit. med. J.*, 1, 1245

Vaginal carriage rates of group B streptococci among 250 women attending a clinic for sexually transmitted diseases, 123 attending family planning clinics, and 110 in labour were 36·0, 17·1, and 6·4 per cent. respectively. The presence of group B streptococci was not associated with a vaginal discharge or the use of oral contraceptives in the non-pregnant

women, nor with the isolation of Neisseria gonorrhoeae or Trichomonas vaginalis from the women attending the clinic for sexually transmitted diseases. Serotyping showed a predominance of types II and III in nonpregnant women and an overall incidence of non-typable strains of 14.8 per cent. There was no relationship between serotype and antibacterial susceptibility.

Authors' summary

#### Isolation of Oxidase-positive Gram-negative Cocci not belonging to the Genus Neisseria. from the Urogenital Tract

PLATT, D. J., and SNELL, J. J. S. (1976) J. clin. Path., 29, 537

The isolation of oxidase-positive, Gram-negative cocci not of the genus Neisseria from the urogenital tract of 39 patients is reported. Of these patients, nineteen were men and twenty were women. Five patients presented with symptoms referable to trichomoniasis or candidosis (confirmed by culture), and in ten patients the clinical diagnosis of 'non-specific genital infection' was made. The remaining 24 patients were asymptomatic and attended either as sexual contacts of patients with established clinical disease or for routine or posttreatment examination; N. gonorrhoeae had been isolated from nine of these 24 patients within the preceding month.

The organisms were isolated on a modified Thayer-Martin medium, and incubated for 48 hrs in candleextinction jars. Direct microscopy on the patients' secretions revealed extracellular Gram-negative cocci on two occasions. The organism grew profusely on nutrient agar, forming mucoid, pink pigment-producing However, they showed fundamental biochemical differences from the genus Neisseria. In particular, they did not produce acid from glucose, lactose, sucrose, or maltose. Staining of the organisms with fluoroscein-coated antigonococcal globulin gave variable and poorly reproducible results. However, eleven of 45 strains examined exhibited an intensity of fluorescence comparable to a Neisseria gonorrhoeae control. On disc testing, resistance to penicillin, ampicillin, cephaloridine, colistin, sulphonamide, cotrimoxazole, and nitrofurantoin was demonstrated, with sensitivity to streptomycin, kanamycin, gentamicin, and tetracycline.

The authors were unable to assign the organisms to a specific genus or species. In view of their Gramnegative nature, the possibility that the strains might be classified in the genus Micrococus was rejected. Exclusion from the genera Neisseria or Acinetobacter was done by examination of DNA base pairing, by which method similarities to either Pseudomonas or Achromobacter were demonstrable. No pathogenic role is proposed for the organisms but the risk of confusion with the gonococcus is stressed; tests useful for differentiating them from N. gonorrhoeae are shown. [More clinical detail about the patients would have been helpful.] G. L. Ridgway

Hepatitis B. Surface Antigen and Antibody in Asymptomatic Blood Donors SINCLAIR, J. C., FEINMAN, S. V., WROBEL, D. M., and BERRIS, B. (1976) J. Amer. med. Ass., 235, 1014

Balanitis and Mycoplasma SIBOULET, A., CATALAN, F., and DEUBEL, M. (1976) Bull. Soc. franç. Derm. Syph., 85, 419

**Epidemic Norwegian Scabies** HUBLER, W. R., JR., and CLABAUGH, W. (1976) Arch. Derm., 112, 179

Norwegian Scabies ESPY, P. D., and JOLLY, H. W., JR. (1976) Arch. Derm., 112, 193

### Notice

Western Pacific and S.E. Asian Regional Conference on S.T.D.

The First Western Pacific and South-East Asian Regional Conference on Sexually Transmitted Diseases and Allied Subjects will be held in Singapore from January 6 to 9, 1977. Papers will be accepted on clinical, therapeutic, social, and other basic scientific aspects of STD and

allied subjects. The official language will be English and the Conference will be held at the Regional English Language Centre. Further particulars may be obtained from Dr. V. S. Rajan, c/o Middle Road Hospital, Singapore 7, Republic of Singapore.